RECEIVED
CENTRAL FAX CENTER
JAN 1 2 2006

Rodel

NOI- 02029

CONFIDENTIAL

NOTICE OF INVENTION

This form will serve as a comprehensive guideline for patent consideration of a technical idea. All questions should be answered as completely as possible. The tab key will move the cursor to the next field and the shift/tab will return the cursor to the previous filed.

RETURN COMPLETED FORMS TO KEN BENSON IN THE LEGAL DEPARTMENT. He will return a copy of the form to the principle inventor with the assigned NOI number, with comments, and with requests for additional information if needed.

I. TITLE OF THE INVENTION

The use of hot melt adhesives for laminating pads, windows, et al, to substrates and sub pads

II. SUMMARY OF THE INVENTION

Provide a brief one paragraph description of the invention such as one would find in an abstract.

This covers the use of hot melt thermoplastic and thermosetting adhesives for laminating top and bottom pads together, and for attaching windows and other features to top and sub pads, and other structures.

III. BACKGROUND

Provide a statement about the technical and/or business motivation for the development of the invention including problems solved by the invention, ways others have solved these problems, and how the invention differs from previous solutions.

This is an improvement on prior pressure sensitive adhesive technology. The bonds are much stronger, and can be far more chemically and aqueously stable than pressure sensitive adhesive technology. This will solve the present pad delamination issues. This will also allow a path around AMAT's full PSA coverage over the window patent.

IV. INVENTIVE ELEMENTS

Describe what you think are the non-obvious, novel, inventive elements of the invention. Also include the advantages of the invention over the prior art (faster, cheaper, more efficient, etc.).

Traditionally, pressure sensitive adhesives have been used for this application. These have the drawbacks of being expensive, relatively low in bond strength, and have marginal chemical resistance. How melts have the advantage of being stronger, more

resistant, and since we buy the material in bulk, it will be significantly less expensive to use. The big plus is elimination of customer complaints due to pad delamination.

V. DETAILED TECHNICAL DESCRIPTION

Describe the invention in detail by answering the following questions.

1) What are the non-obvious, inventive elements of this invention compared to known art, such as a type of compound that performs a novel function in a CMP slurry? Or if a process, what are the steps necessary to carry out the process indicating what steps are new and novel? And if it deals with physical structures such as pads and carriers, how it is constructed, how it is useful, and what is new and novel about it?

Traditionally, PSAs have been used for this application. The use of a hot melt, using a roll coater from a company like Black Brothers is new to the polishing pad industry. The method of application is: Charge a roll coater with hot melt adhesive, either a conventional thermoplastic, or preferrably one of the new reactive polyurethane hot melts. Run the pad through, the coater, printing or coating the adhesive only on the face of the pad. Next, laminate this pad to the sub pad before the 'open time' of the adhesive has expired. This can be a roll laminator, a press, or any other form of laminator. After the allotted time has passed, the pad is now ready for use, or further processing.
As a note, other forms of coaters can be used, like doctor blade coaters, spray coaters, reverse roll coaters, etc.

2) If applicable, provide supporting data and examples (including graphs and tables) comparing this discovery to existing art. If not available, provide date by which such data will be available.

We will have data in 3 months on peel strength and chemical resistance.

3) If helpful, provide a sketch or diagram that clearly shows the invention.

4) If possible, define the invention by the broadest mechanism by which the invention works and list compounds, materials, or types of same that would work based on the proposed mechanism.

Adhesive materials: Polyolefins, EVA, polyamides, polyesters, thermoplastic polyurethanes, reactive polyurethane hot melts, PVC, epoxies, and other thermoplastic and thermoset materials.

5) Specify any parameter ranges for concentrations of components, for dimensions, for physical properties, for times of processing, etc. Include the complete range, the preferred range and the most preferred range if possible.

Application thicknesses of 0.1 mils to 25 mils. One mil= 0.001 inch. Processing temperatures can be anything that will not damage the materials being bonded, but will

solidy reasonably quickly to achieve an early bond. These are typically single component adhesives.

VI. DATES AND STATUS

Provide a brief statement of the stage of the project and whether there are any times to consider such as future or past disclosure outside Rodel (even under a Non-Disclosure Agreement). Please indicate if there is a possibility of joint inventorship with someone in an entity outside of Rodel.

We are presently in the exploratory phase. We have contacted both machine and material vendors, and have NDAs in place will all these parties. We have submitted samples for adhesive testing.

VII. RECORDS

All records about the discovery and working of the invention **must be** in Rodel permanent notebooks. If an application is filed, the Legal Dept. should have copies of all notebook references, all related research reports, and all other relevant material in their files. With this form send only copies which have information necessary for consideration of patentability (for example, the description of the invention, data, graphs, and drawings may be copies of your notebook pages).

VIII. PRIOR ART

List relevant references and prior art that you know of. Include information acquired from a NERAC or Patent Office website search if one has been carried out.

There needs to be a search performed.

IX. INVENTORS

Name all inventors with the originator of the concept of the invention first.

John V. H. Roberts

SUBMITTED BY:

Signature	Witness
Printed Name	Printed Name
Date: ___	